Marlene H. Dortch
Office of the Secretary
Federal Communications Commission
445 12th Street, SW
Washington, D.C. 20554

RE: ET Docket No. 10-123

June 15, 2010

Dear Madame Secretary:

I am writing in support of SeaSpace Corporation, a member of the California Space Authority, with regard to the proposed reallocation of the 1675-1710 MHz band. SeaSpace Corporation, a California Corporation and small business consisting of 32 employees, was founded in 1982 out of a Small Business Innovations Research grant from the U.S. Government as a provider of satellite direct reception ground stations. They currently have 470 customers worldwide. Approximately 80 of their customers (including themselves) have at least one land-based ground station in the U.S., not counting multiple U.S. military and research shipboard systems involved in littoral operations.

Specifically, CSA supports the position of SeaSpace in opposition to the reallocation of the 1675-1710 MHz band to broadband users. The proposed allocation would not only compromise the viability of SeaSpace Corporation, but would risk harm to public safety and research activities conducted by their customers.

The 1675-1710 MHz band is used by SeaSpace Corporation and their customers to receive meteorological, oceanographic, and land-use data directly from the following satellites: NOAA-series (USA), GOES-series (USA), MetOp (EU), and FY-1D (China). Depending on a customerâ€™s geographic location and objective, a single ground station maybe used continuously 24 hours a day (For calculation, see Appendix D).

In the 1675-1710 MHz band range, the following frequencies are used by SeaSpace direct reception ground stations:

1685.7 ± 3 MHz 1702.5 ± 1.5 MHz
1691.0 ± 256 KHz 1707.0 ± 1.5 MHz
1698.0 ± 1.5 MHz

Although the frequency range that L-Band direct reception uses can be quantified exactly above, a

band sharing agreement in the 1675-1710 MHz range would not be effective because broadband wireless equipment has poor filtering, and will therefore increase noise harmonics that will spill over into the satellite data range that is needed, rendering the data noisy and useless to SeaSpace Corporation and their users.

SeaSpace Corporation collects revenues from two main sources. The first is from sales of direct reception ground stations which can cost from $100,000 to $500,000 each, and the second is from yearly software support fees, which can range from $8500 to $18,500 a year. Both price ranges are dependent upon the number of satellites that the customer desires to receive. Other revenue streams that would be compromised are SeaSpaceâ€™s data operations, in which SeaSpace Corporation collects data at their headquarters in Poway, California, and sells the processed data to other customers who do not have a direct reception ground station.

Due to the publicâ€™s daily use of software, such as Google Earth, and websites provided by agencies such as NASA and NOAA, there is a perception that all Earth Science satellite data can be received online. This is unfortunately not true, and a dangerous misconception. Data received via the internet has the following drawbacks:

1. It is not â€œreal-timeâ€. Real-time data is defined as data that is received as close to simultaneously as is possible to when the satellite images an area. A Direct Broadcast satellite transmits the â€œpictureâ€ it sees immediately after it sees it. Data received from NOAA and NASA via the internet may not be available for hours, sometimes days, after it is received. This makes it useless for operational applications.
2. All data products may not be available. Each satellite takes multiple bands of data. It is then processed into different resolutions and end products using scientific algorithms. Data available via the Internet is usually already processed to certain end-points, which may or may not fit the userâ€™s needs, and currently NOAA does not disseminate all possible products. By receiving the raw data directly from the satellites, users can customize products, even create their own products. This kind of decentralized approach is essential to the scientific process, and is continuously driving innovation in the field.
3. Internet data transmission required huge amounts of bandwidth, not only by the user, but by the organization serving the data. We cannot speak with authority on NOAAâ€™s ability to provide thousands of large data sets daily to hundreds of users, but we do not think it currently exists, and would require a huge infusion of capital investment for upgraded IT infrastructure.
4. Internet data is not dependable during times of crisis, when operational agencies (research, government, and military) need it the most. A direct reception ground station can provide continuous data coverage in the absence of internet connectivity and grid power. In an emergency such as fire, flood, earthquake, or war, a direct reception ground station is essential, which is why agencies with operational missions across the globe continue to purchase such stations.

SeaSpace Corporationâ€™s U.S. based customers with ground stations primarily include government agencies, military, universities and companies involved in defense or weather services. In the following paragraphs, a few of SeaSpaceâ€™s customers are listed as well as their current uses of their ground stations.

Louisiana State University (LSU): Today the Earth Scan Lab at LSU is today using their SeaSpace ground station to track the oil spill in the Gulf of Mexico and support emergency responders.

Naval Research Lab Monterey (NRL): Today NRL is using their SeaSpace ground station to provide weather forecasts for the U.S. Navy across the entire Western Hemisphere. From their location in Mississippi, they can receive GOES-11, -12, and -13 which transmit weather data from the Pacific, Continental U.S., Atlantic, and South America.

Navy Joint Typhoon Warning Center (JTWC): Today JTWC is using a SeaSpace ground station to monitor the Pacific Ocean for storms capable of becoming a hurricane and alerting Navy ships in the area.

University of Wisconsin, Madison (UWI): Today UWI is using a SeaSpace ground station to receive satellite data and convert it into simulated next generation satellite system data in order to create the next generation of data algorithms for NOAA and NASA.

USS John C. Stennis: Today the USS John C. Stennis is receiving satellite data directly to their ship to forecast weather for the entire John C. Stennis Carrier Strike Group.

U.S. Forrest Service (USFS): Today the USFS uses their SeaSpace ground station to receive data and remotely detect forest fires. The fire locations are then put on their website and available to the public.

Weather Services International (WSI): Today WSI, a Weather Channel Company, uses a SeaSpace ground Station to receive weather data and disseminates it to media, aviation, energy trading and utility industry customers around the United States.

U.S. Coast Guard (USCG): Today the USCG is receiving weather data for weather, ocean conditions, and ice operations.

The above are just a few example of how systems from SeaSpace Corporation are used. These examples demonstrate the criticality of use of the 1675-1710 MHz frequency band in their business. If that frequency is transferred to the broadband community, irreparable damage will be done to the United States. The direct reception community, including SeaSpace Corporation, will be irreparably

harmed by the loss of all of their U.S. customers, which could lead to relocation of all operations overseas.

For the reason stated above, the California Space Authority asks that you do not reallocate the 1675-1710 MHz frequency band.

Respectfully,

Janice Dunn
Deputy Director